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EXAMINER
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CHOI, PETER Y

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/767,541	<b>Applicant(s)</b> VICK, WAYNE E.	
	<b>Examiner</b> Peter Y. Choi	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 41-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 41-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**FINAL ACTION**

1. Applicant's remarks and amendments, filed August 31, 2006, have been entered and have been carefully considered.
2. In view of the amendments to the specification, the Examiner withdraws the objections to the specification.
3. As to the 35 U.S.C. 112, first paragraph, rejection of claims 1-10 and 41-49 on the grounds that the specification does not enable one skilled in the art to ascertain, without undue experimentation, materials for the first layer which would meet the claim requirements, Applicant's remarks and amendments are not persuasive to overcome the rejection.
4. As to the 35 U.S.C. 112, first paragraph, rejection of claims 1-10 and 41-49 on the grounds that the specification does not provide enablement for materials suitable for use as the "substrate" originally claimed, due to the Applicant's amendments, the Examiner withdraws this rejection.
5. As to the 35 U.S.C. 112, second paragraph, rejection of claims 1-10 and 41-49, which follows the reasoning of *Ex parte Slob*, Applicant's remarks and amendments are not persuasive to overcome the rejection.
6. As to the 35 U.S.C. 112, second paragraph, rejection of claims 1-10 and 41-49 regarding the claim language which includes a "substrate" and as to the rejection of Claims 4 and 44 regarding the positioning of the yarns, due to Applicant's amendments, the Examiner withdraws these rejections.

Art Unit: 1771

7. As to the 35 U.S.C. 102 (b) and 103(a) rejections, which were set forth jointly or alternatively, Applicant's remarks and amendments have been carefully considered but are not persuasive to overcome the rejections.

*Specification*

8. The disclosure is objected to because of the following informalities:

The amendment filed August 31, 2006, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the general properties of KOSA Type 792 yarn as presented in the amendment are new matter as they were not present in the original specification as filed. The specification only refers to nominal deniers of 1000, 1300 and 1500, the breaking load (lb) and the elongation @ break percentage. The amendment refers to additional properties (i.e. nominal decitex, filament count, luster, tenacity, breaking load (N), elongation @ 45 N, and hot air shrinkage @ 177?) which are unclear as to whether they are inherent properties of KOSA Type 792 yarn or are perceived properties under certain conditions at the time of invention. The additional recited properties in the amendment are not disclosed in the specification, drawings or claims as originally filed. By introducing additional properties of KOSA Type 792 yarn, Applicant is enlarging the scope of the specification by introducing additional properties and ranges of yarn which Applicant claims could meet the claim limitations of the first layer, thus broadening the scope of the disclosure. As the introduction of additional properties of KOSA Type 792 yarn in the amendment adds additional elements to the

Art Unit: 1771

specification which were not in the specification as originally filed, the amendments regarding the KOSA Type 792 constitute new matter. Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1-10 and 41-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As previously discussed in the office action of March 9, 2006, the specification would only be enabling for a specific type of yarn meeting the property requirements of the first layer (KOSA Type 792, denier 1000, 1300, or 1500) which are specifically disclosed in the specification. The specification is not reasonably enabling for all building materials which would meet the claimed properties disclosed. One of ordinary skill in the art would not be able to make and/or use the invention without undue experimentation since there are no teachings or suggestion in the specification of alternative materials which could meet the claim limitations of the first layer. Therefore, the claims are rejected for failing to comply with the enablement requirement of 35 U.S.C. 112, first paragraph.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1771

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-10 and 41-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 1 and 41 recite physical properties of yarns (i.e. elongation characteristic before breaking, creep after elongation, denier range), without setting forth structural or chemical characteristics of the yarn. According to *Ex parte Slob*, 157 USPQ 172,

“Claims merely setting forth physical characteristics desired in article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients presently existing or which might be discovered in the future and which would impart desired characteristics...”

The inquiry is to determine whether the claims set out and circumscribe a particular area with a reasonable degree of precision and particularity, and the definiteness of the claim language employed must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing an ordinary level of skill in the pertinent art. *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971).

The claims only describe the properties of the first layer yarn without describing the structure of the first layer. Applicant only claims the characteristic properties of yarns which may comprise the first layer instead of claiming the specific yarns comprising such properties. Conceivably, any yarn known at the time of conception or later invented comprising, for example, an elongation characteristic range of about 2.5 to about 4.7 percent before breaking, could comprise the first layer. Additionally, the elongation characteristic range is indefinite since it may be determined by any method of experimentation.

Art Unit: 1771

Even when read in light of the specification, the characteristics of the yarn comprising the first layer are vague and indefinite as to the scope of what materials may contain those characteristics. The specification discloses that a possible material which may comprise the first layer is the KOSA Type 792 yarn, yet the disclosure and the subsequent amendment do not identify that the KOSA Type 792 yarn has a creep of less than about 2 percent after elongation, as claimed.

For the foregoing reasons, the claims circumscribe an area of protection which exceed the reasonable degree of precision and particularity as set forth in *Moore*. Accordingly, claims 1-10 and 41-49 are indefinite for failing to identify a structure which can meet the claim limitations and for reciting only the desired properties of the yarn.

***Claim Rejections - 35 USC § 102/103***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1771

14. Claims 1, 3, 10, 41, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative under 35 U.S.C. 103(a) as unpatentable over, Blackmore, et al., U.S. Patent No. 5,695,373.

The features of Blackmore were set forth in the office action of March 9, 2006, and are repeated here. Blackmore teaches reinforcing materials for roofing composites comprising two layers. The first layer comprises continuous filament polyester yarns in a range from about 500 to 2000 denier (column 3, lines 19-35). The first layer of the reference is analogous to the claimed first layer. While the reference does not recite the percent elongation or creep of the materials comprising the first layer, the properties are deemed inherent in a polyester filament having a denier of about 500 to about 2000 in the absence of further evidence or unexpected results. See *In re Fitzgerald*, 205 USPQ 594. While the reference also does not specifically recite the elongation characteristic and creep claimed, it would have been obvious to one having ordinary skill in the art to discover the optimal or workable range for a yarn with the elongation characteristic and creep specified to accomplish the desired purpose. *In re Aller*, 220 F.2d 454, 105 USPQ 133 (CCPA 1955). The reinforcing material taught by the reference further includes a second layer comprising a nonwoven, spunbonded glass mat, which is analogous to the claimed second layer (column 3, lines 19-35; column 1, lines 27-34).

15. Regarding claims 3 and 43, an adhesive secures the first layer to the second layer, thus meeting the requirements of the claims (column 3, lines 31-35).

16. Regarding claim 10, the denier range of the first layer encompasses the claimed range.



***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 1-3, 5-10, 41-43, and 45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock, U.S. Patent No. 6,089,802.

19. The features of Bullock were set forth in the office action of March 9, 2006, and are repeated here. The Bullock reference teaches a load restraint system including adhesive-coated strips (Abstract). The strips comprise a polyester strip, preferably a film of spunbonded olefin (column 5, lines 41-49). Thus, the strips are analogous to the claimed second layer as they meet the limitations of claims 2 and 42. The strip may be inlaid with polyester or polyethylene fiber reinforcement strands **40**, which run longitudinally and are in a parallel array (column 5, lines 51-57). Thus, the reinforcement strands are analogous to the yarns of the claimed first layer as they meet the limitations of claims 4 and 44. Additional reinforcing strands **42**, or reinforcing straps **43**, may be used in conjunction with the reinforcing strands **40**, to provide added strength (column 5, lines 51-57). The reference is silent with respect to the elongation percentage and creep properties of the reinforcing strands **42**, which are analogous to the claimed first layer. The reference describes the arrangement of the polyester reinforcing strands and indicates that the fibers may be comprised of single strands or bundles of many strands (column 6, lines 10-12). Therefore, it is left to one of ordinary skill in the art to select known polyester strands or bundles based on the desired purpose and intended use. *In re Leshin*, 125 USPQ 416.

While the reference does not specifically disclose elongation percentages before breaking or creep properties, the reference does disclose that an object of the invention is to provide a material that is resistant to axial lengthening when placed in tension under the weight of a cargo load (column 3 lines 57-61). Therefore, a material having the similar structure to the first layer described in claim 1, which is designed to resist axial lengthening when securing a cargo load, would similarly have an implied low percent elongation and creep properties, thus meeting the limitations of claim 1.

20. Regarding the denier values claimed in claims 10 and 41, absent further evidence or unexpected results, it would have been obvious to one of ordinary skill in the art to determine, without undue experimentation, the optimal polyester reinforcing strands, motivated by the desire for a product that is resistant to axial lengthening and is suitable for the desired purpose.

21. Regarding claims 3 and 43, the reference does not disclose the method of bonding used to adhere the reinforcing strands to the strip 24. However, the reference does disclose that the strands may be monolithic or inlaid (column 5, lines 51-53). "Inlaid" encompasses myriad bonding methods, including adhesive or thermal bonding. It would have been obvious to one of ordinary skill in the art to employ a known bonding method to accomplish the goals of the prior art. Absent further evidence or unexpected results, there is no patentable distinction over the prior art.

22. Regarding claims 5 and 45, an adhesive coating is applied to a side of the restraining strip to adhesively bind the restraining strip to a side wall of a container (column 5, lines 63-67 to column 6, lines 1-4). The adhesive is releasable from the release paper and from the side of the

Art Unit: 1771

container (column 7, line 63 to column 8, line 6). The adhesive is quickly removable and disposable due to a minimum peel resistance (column 8, lines 34-37).

23. Regarding claims 6, 7, 46, and 47, the reinforcing strips are analogous to the claimed first layer as set forth above. The reference discloses that the reinforcing strips may be assembled in various patterns and that the fibers may be arranged longitudinally, laterally, diagonally, sinusoidally, or in any combination thereof (column 6, lines 6-12). It would have been obvious to one of ordinary skill in the art to customize the reinforcing strips with a desired pattern, which includes providing added strength to the restraining strip (column 5, lines 53-57), to accomplish the desired purpose. Absent further evidence or unexpected results, there is no patentable distinction over the prior art.

24. Regarding claims 8 and 48, while the reference does not disclose a specific thickness of the materials, the reference does disclose an exemplary width of fifteen inches (column 5, lines 45-47). The reference teaches that various widths may be substituted depending on the necessity of additional strength. As the reference depicts cargo and cargo vessels of various size, it would have been obvious to one of ordinary skill in the art to adapt the size and thickness of the material to the dimensions of the cargo and the cargo vessel. For example, larger and heavier cargo would require greater strength as opposed to smaller and lighter cargo which would require lesser strength. Juxtaposed accordingly, since the reference teaches a correlation between width and strength, the disclosed dimensions in the reference appear to be no more than a preferred embodiment which is undistinguishable from the claimed dimensions, absent further evidence or unexpected results.

25. Claims 9 and 49 contain functional language without providing structure which can accomplish the claimed function. Thus, interpreted broadly since the claimed reinforcement strap does not identify a corresponding structure or a desired purpose, the additional reinforcing straps 43 or the release paper 34 may be considered analogous to the claimed reinforcement strap. The purpose of the straps is to provide added strength to the restraining strip and the release paper presumably further stabilizes the structure. Both are coupled to the composite material and both may run parallel to the longitudinal axis of the strap. Alternatively, an overlapping end of the restraining strap may be considered a “reinforcing strap” within the broad interpretation as it is coupled to the first piece of a restraining strap and is generally parallel to the longitudinal axis of the strap (column 6, lines 13-21; figures 9 and 10).

#### ***Response to Arguments***

26. Applicant’s remarks and amendments, filed August 31, 2006, have been fully considered and, as set forth above, the 35 U.S.C. 112, first paragraph, rejection of claims 1-10 and 41-49 on the grounds that the specification is not enabling in regards to suitable materials for the first layer meeting the claim requirements, the 35 U.S.C. 112, second paragraph, rejection of claims 1-10 and 41-49, which follows the reasoning of *Ex parte Slob*, and the 35 U.S.C. 102 (b) and 103(a) rejections, which were set forth jointly or alternatively, are not persuasive to overcome the rejections. Each of Applicant’s arguments are discussed below.

27. The previous office action of March 9, 2006, stated that the specification, while being enabling for a specific yarn disclosed in the specification meeting the property requirements of the first layer, does not reasonably provide enablement for all materials which would meet the

Art Unit: 1771

claimed property requirements. Applicant amended the specification to include a description of the materials "KOSA, Type 792" and "TREVIRA" stating that "the properties and information describing the materials would be recognized by one skilled in the art" (page 9 of 17). The amendment is not capable of overcoming the previously stated rejections.

First, as set forth above, the amendment contains new matter not present in the specification, drawings and claims as originally filed. The amendment refers to additional properties (i.e. nominal decitex, filament count, luster, tenacity, breaking load (N), elongation @ 45 N, and hot air shrinkage @ 177?) which are not deemed to be inherent properties to the materials originally disclosed in the absence of further evidence. The yarns with the specific deniers are only disclosed to have corresponding creep properties, maximum elongations at break, break loads, hot air shrinkages at 350° F, and shrinkage forces at 350° F as set forth on pages 14 and 15 of the originally filed specification. As set forth above in Section 8, by introducing additional properties of KOSA Type 792 yarn, Applicant is enlarging the scope of the specification by introducing additional properties and ranges of yarn which Applicant claims could meet the claim limitations of the first layer, thus broadening the scope of the disclosure. Since the introduction of additional properties of KOSA Type 792 yarn in the amendment adds additional elements to the specification which were not in the specification as originally filed, the amendments regarding the KOSA Type 792 constitute new matter which is objected to and thus not persuasive to overcome the rejection.

Second, even if not containing new matter, the amendment does not provide information that would reasonably enable one of ordinary skill in the art to make or use the first layer as claimed in claims 1 and 41. Claims 1 and 41, as amended, claim a yarn defined by properties

Art Unit: 1771

and not by structure. The specification does not define materials which may be suitable for use as the first layer other than "KOSA Type 792" of deniers 1000, 1300 and 1500 with the corresponding properties discussed above. As disclosed on page 16 of the specification, it appears that the KOSA Type 792 yarn having deniers of 1000, 1300 and 1500 may only be used in one embodiment having the characteristics set forth on page 16 (i.e. chemically and physically stable and resistant to myriad substances). It is indeterminate if the KOSA Type 792 yarn includes the characteristics as set forth on pages 14 and 15 corresponding to the yarns of deniers 1000, 1300 and 1500, or if the KOSA Type 792 is only utilized in one particular embodiment. One of ordinary skill in the art would not be enabled to make or use the first layer of the claimed invention based on only the properties disclosed without undue experimentation since no other materials are set forth which meet the property limitations of the claims.

Third, the limitations of the specification (i.e. the KOSA Type 792 yarn of deniers 1000, 1300 and 1500) are not read into the claims, although the claims are read in light of the specification. Claims 1 and 41, as amended, are not enabling since KOSA Type 792 yarns as disclosed in the specification are not imputed as limitations of the claims. Even if the claims are read in light of the specification, the structure necessary to meet the property limitations of the claims are not indicated or suggested. KOSA Type 792 yarn, as discussed in the previous paragraph, may contain all of the specific property limitations or it may only be used for a specific embodiment. Thus, one of ordinary skill in the art would not only have to experiment to acquire a yarn having the prescribed property requirements of the first layer of the claims, but would have to find a yarn which is chemically and physically stable and resistant to myriad substances.

Art Unit: 1771

For the foregoing reasons, independent claims 1 and 41, and dependent claims 2-10 and 42-49, are rejected under 35 U.S.C. 112, first paragraph, on the grounds that the specification is not enabling. The specification does not indicate or suggest suitable materials for the first layer meeting the limitations of the claims.

28. The previous office action, as indicated above, rejected claims 1-10 and 41-49, following the reasoning of *Ex parte Slob* that the claims merely set forth physical properties of yarns and do not set forth specific compositions which would meet such characteristics. Summarily, the claims are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future that would impart desired characteristics (paragraph 8 of the previous office action). Applicant argues that the specification does provide structural and chemical characteristics of the yarn, on page 14, line 1 through page 17, line 11. Additionally, Applicant amended the specification to provide more detail on the materials described (i.e. KOSA Type 792 and TREVIRA), and states that the properties and information describing the materials would be recognized by one skilled in the art.

As set forth above, the specification is objected to as it contains new matter. Since the introduction of additional properties of KOSA Type 792 yarn in the amendment adds additional elements to the specification which were not in the specification as originally filed, the amendments regarding the KOSA Type 792 constitute new matter and are not persuasive to overcome the rejection.

As to the amended specification providing additional details on KOSA Type 792 and TREVIRA, as indicated above, even if the claims are read in light of the specification, the

Art Unit: 1771

structure necessary to meet the property limitations of the claims are unclear rendering the claims indefinite. The specification discloses that a possible material which may comprise the first layer is KOSA Type 792 yarn, yet the disclosure and the subsequent amendment do not identify that KOSA Type 792 yarn has a creep of less than about 2 percent after elongation as claimed. Additionally, KOSA Type 792 yarn, as discussed above, may contain all of the specific property limitations or it may only be used for a specific embodiment. Thus, one of ordinary skill in the art would not only have to experiment to acquire a yarn having the prescribed property requirements of the first layer of the claims, but would have to find a yarn which is chemically and physically stable and resistant to myriad substances.

Amended claims 1-10 and 41-49 remain indefinite as the claims lack a recitation to structural and/or chemical limitations which would distinguish the first layer and subsequently the claim as a whole from the prior art. Without any recital of structures in the claims which could meet the limitations of the first layer, conceivably, any material known at the time of conception or created in the future which possesses the claimed properties would be covered under the claims. While Applicant argues that the structural and chemical characteristics of the yarn as disclosed in the specification are adequate to meet the limitations of the claims, as mentioned above, the limitations provided in the specification are not read into the claims. As such, the scope of the claims are indefinite as the claims only describe the properties of the first layer without setting forth a structure commensurate to meet the limitations in the claims.

29. The previous office action, as indicated above, rejected Claims 1, 3, 10, 41, and 43 as being anticipated under 35 U.S.C. 102(b) or 103(a), jointly or alternatively, over Blackmore, et



Art Unit: 1771

al., U.S. Patent No. 5,695,373. In traversing this rejection Applicant argues that Blackmore is non-analogous art and that Blackmore teaches away from the claimed invention.

As to the argument that Blackmore is non-analogous art, Applicant states that “there is no motivation, teaching, or suggestion to use the material from Blackmore et al. for use as a composite restraint strap for securing freight...[since] Blackmore et al. relates to a large sheet of material that is unrolled and used on top of a roof” (page 11 of 17).

In determining whether prior art is non-analogous art, while a reference may be directed to an entirely different field of endeavor than that of the claimed invention, the reference is still anticipatory if it explicitly or inherently discloses every limitation recited in the claims. *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1068, 68 USPQ2d 1481, 1488 (Fed. Cir. 2003). A reference which is outside the field of the claimed invention is analogous art if it recites, explicitly or inherently, every limitation or structure of the recited claims. It is not necessary for the invention in the reference to intend to accomplish the purpose of the claimed invention. The invention in the reference must simply be capable of accomplishing the purpose of the claimed invention. Intuitively, the similar purposes can be accomplished by identical inventions containing identical structures.

That the intended purpose of the invention in the prior art reference is for use on top of a roof instead of for securing freight is irrelevant in an analogous art analysis so long as the invention in the prior art reference contains a similar structure with similar limitations to the claimed invention. As Applicant, first, only argues that the prior art reference is non-analogous art, as set forth above, the structures as described are similar and thus are capable of accomplishing the same purpose. Therefore, the prior art reference is analogous art.

As to the argument that Blackmore teaches away from the claimed invention, Applicant argues that the material in Blackmore could not be used to secure freight “because the intended function of the roofing membrane could be damaged, or in the worst case, destroyed” because the material “is intended for relatively low tensions and elongations” (page 11 of 17). Applicant concludes by stating that the material in Blackmore could not “withstand any elongation when actually in use with the fiberglass mat, and most certainly could not withstand elongation above 1.5%” (pages 11-12 of 17).

Applicant does not argue structural differences between the invention disclosed in Blackmore and the claimed invention. Applicant argues that the desired properties associated with the prior art invention are different than the claimed properties, specifically in relation to the tension associated with the first layer. While Blackmore discloses an embodiment where the tension of the first layer is no more than 1.5% stretch of the yarns, the reference prefaces that characteristic by stating it is only a preferred embodiment. The reference teaches that the material, when formed, “is flexible, capable of being impregnated by bituminous material and sufficiently strong to be useful in reinforcing such membranes” (column 4, lines 65-67). Therefore, the reference teaches that the material is customizable depending on the desired purpose, so long as the material remains flexible and sufficiently strong to reinforce such membranes. Since the material in the prior art is identical to the claimed invention, the properties of the material in the prior art are identical to the properties of the claimed invention. As the prior art invention and the claimed invention are identical in structure, the properties would have been obvious to one of ordinary skill in the art based on optimizing the invention to accomplish a desired purpose. Applicant’s argument is not persuasive to overcome the rejection.

Art Unit: 1771

As to claims 3, 10 and 43, Applicant only argues that the dependent claims should be allowable if independent claims 1 and 41 are allowable over the Blackmore reference. For the reasons set forth above, Applicant's arguments are not persuasive to overcome the rejection to the dependent claims.

30. The previous office action, as indicated above, rejected Claims 1-3, 5-10, 41-43, and 45-49 under 35 U.S.C. 103(a), as being unpatentable over Bullock, U.S. Patent No. 6,089,802. In traversing this rejection, Applicant argues that Bullock does not describe or suggest a strap having a particular percent elongation or creep and does not disclose or suggest a denier range or any mechanical properties of the reinforcement strands.

As to claim 1, Applicant argues that the specification sets forth "specified creep and percent elongation characteristics which have several advantages over the prior art" (page 13 of 17). Applicant does not indicate nor suggest the structure that contains the specified creep and percent elongation characteristics. Applicant only argues potential advantages of a layer having the claimed properties. While the prior art does not specifically teach the creep and percent elongation characteristics, the prior art does teach a structure identical to the claimed structures which is resistant to axial lengthening. As discussed earlier, a material having the similar structure to the first layer described in claim 1, which is customizable and designed to resist axial lengthening when securing a cargo load, would similarly have an implied low percent elongation and creep properties, thus meeting the limitations of claim 1. Therefore, Applicant's arguments are not persuasive to overcome the rejection.

As to claim 41, Applicant argues that the claimed yarns with different denier values provide different mechanical properties. As evidence, Applicant points to performed mechanical

Art Unit: 1771

testing which was used to determine appropriate ranges of denier values. Applicant does not present evidence that the advantages disclosed in the specification are not inherent properties of yarns having deniers of 1000, 1300 and 1500, but are specific properties imparted onto the yarn. In other words, Applicant is claiming that any yarns having deniers of 1000, 1300 and 1500 must have the corresponding elongation percentages and creeps of less than about 2 percent as described on pages 14-16, instead of stating that the combined properties would produce the various deniers. As the Bullock reference and the claimed invention are identical in structure and are intended for the identical purpose, it would have been obvious to one of ordinary skill in the art to optimize the yarn with a specific denier to accomplish the desired purpose of restraining cargo. Therefore, Applicant's arguments are not persuasive to overcome the rejection.

As to claims 2, 3, 5-10, 42, 43, and 45-49, Applicant only argues that the dependent claims should be allowable if independent claims 1 and 41 are allowable over the Bullock reference. For the reasons set forth above, Applicant's arguments are not persuasive to overcome the rejection to the dependent claims.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

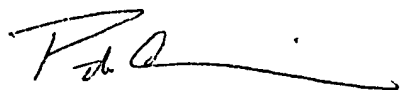
Art Unit: 1771

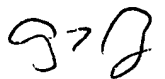
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Y. Choi whose telephone number is (571) 272-6730. The examiner can normally be reached on Monday - Friday, 08:00 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



  
ANDREW PIZIALI  
PRIMARY EXAMINER